Comelit®
USA FORMERLY CYREX

HANDS-FREE EXPANDABLE VIDEO INTERCOM SYSTEM

HFX-700M KIT

OWNER'S MANUAL
INSTALLATION AND OPERATION

TABLE OF CONTENTS

IMPORTANT SAFETY INSTRUCTIONS 1
WARNING 2
FCC CLASS B NOTICE 3
HFX-700M KIT VIDEO INTERCOM SYSTEM
1.HFX-700M KIT Introduction 4
2.HFX-700M KIT Parts Identification 4
2.1.Main Monitor 5
2.2.Door Camera 5
2.3.HFX-700M KIT Packaging 7
3.HFX-700M KIT Installation 7
3.1. Positioning the devices 8
3.2. Installation 8
3.3. Door Release Options 9
4. HFX-700M KIT Test after installation 11
4.1. Basic function test 12
4.2. Door release test(optional) 12
5. HFX-700M KIT Operation 12
5.1.Visitor Calls from Door Camera 13
5.2.Audio and Video monitoring 13
5.3.Unilateral voice mode control 13
EXPANSION OPTIONS 13
System Layout
Wiring Diagram 14
1. Expansion video monitor (EX-700H) 14
1.1.EX-700H Identification 15
1.2.EX-700H Installation 16
1.3.EX-700H Operation 16
1.3.1.Broadcast and intercom function 18
2. Expansion non-video monitor (EX-700A) 19
2.1.EX-700A Identification 20
2.2.EX-700A Installation 21
2.3.EX-700A Operation 22
2.3.1.Broadcast and intercom function 22
3.Door camera (EX-700D) 23
3.1.EX-700D Identification 23
3.2.EX-700D Installation 24
3.3.EX-700D Operation 25
TECHNICAL SPECIFICATIONS 26
TROUBLE SHOOTING 28
SERVICE AND WARRANTY 29

IMPORTANT SAFETY INSTRUCTIONS

WARING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE MONITOR OR POWER ADAPTER TO WATER OR MOISTURE.

- Read Instructions -All the safety and operating instructions should be read before operating this equipment. These instructions should be retained for future reference.
- Heed Warnings - All warnings on the equipment and in the operating instructions should be adhered to. All instructions regarding care and operation of this equipment should be followed.
- Power Sources - Equipment should only be connected to the power supply specified in the operating instructions or as marked on the equipment.
- Power Cord Protection-Keep cable cords and plugs clear off other objects, particularly at the point where they exit the equipment.
- Cleaning - Clean the equipment by wiping with a soft cloth (do not use any abrasive agents or water).
- Non-use Periods - Power cords should be unplugged from the outlet when left unused for a long period of time.
- Object and Liquid Entry - Take care not to drop objects or liquids on any part of the equipment.
- Damage Requiring Service -The unit should be serviced by a qualified service personnel when:
  - The power supply cord or the plug has been damaged or
  - Objects have fallen, or liquid has been spilled onto the equipment or
  - The equipment has been exposed to rain or
  - The equipment does not appear to operate normally or exhibits a marked change in performance or
  - The equipment has been dropped and/or the enclosure has been damaged.
- Servicing - Do not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to as Qualified Distributor's Service Personnel.

WARNING

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE MONITOR OR POWER ADAPTER TO WATER OR MOISTURE.

CAUTION: DO NOT OPEN. RISK OF ELECTRICAL SHOCK.

CAUTION! TO REDUCE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER OR BACK, NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

OTHER WARNINGS

- Monitor is designed for indoor use only. Do not install outdoors.
- Keep the equipment dry. If water should get in,wipe off immediately. Water contains minerals that can erode electronic circuits.
- Intercom system is not operational during a power failure .
- Intercom system may be affected by radio frequency interference or EMI(electrical magnetic interference) in areas where broadcasting station antennas are close by.
- Keep all wiring at least 1 foot away from fluorescent lighting, dimmer switches and AC power.

EXPLANATION OF TWO SYMBOLS

The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electrical shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

FCC CLASS B NOTICE

NOTE:
This equipment has been Certified and found to comply with the limits regulated by FCC,and CE. Therefore, it is designed to provide reasonable protection against interference and will not cause interference with other appliance usage. However, it is imperative that the user follows this manuals guidelines to avoid improper usage which may result in damage to the unit, electrical shock, and fire hazard or injury. In order to improve the feature functions and quality of the product, the specifications are subject to change without notice from time to time.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installaition. If this equipment does cause harmful interference to radio or televis ion reception, which can be determined by turning the equipment off and on, the user is encouraged to try to connect the interference by one or more of the following measures:

- Reorient or relocate the monitor unit
- Increase the separation between the monitor and camera
- Connect the equipment on a separate outlet
- Consult the dealer or an experienced radio or television technician

HFX-700M KIT VIDEO INTERCOM SYSTEM

1.Introduction

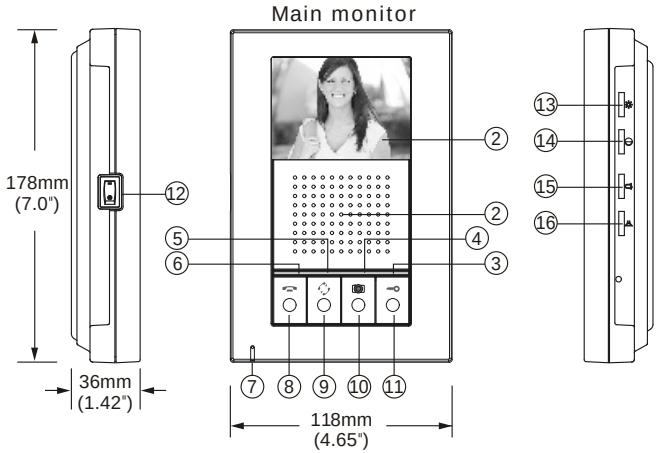
Thank you for purchasing the Hands-Free expandable Video Intercom System HFX-700M.
This intercom system uses 2-wire installation, and operation is simple. Allows you to identify and communicate with callers at the door, from the security and convenience of any room in your home or office. Visitors activate the system by pressing a call button on the outdoor camera, which sounds a doorbell chime as well as turning on the inside video monitor. A two-way intercom then lets you speak with visitors after first visually identifying them.

It consists of a monitor station and an outdoor doorbell/camera unit. This unit is capable of expanding up to a total of 4 indoor monitors and 2 door cameras. Expansion monitor can choose video(EX-700H) or non-video(EX-700A).

For more information regarding the complete line of our products, please visit www.comelitusa.com

2.HFX-700M KIT Parts Identification

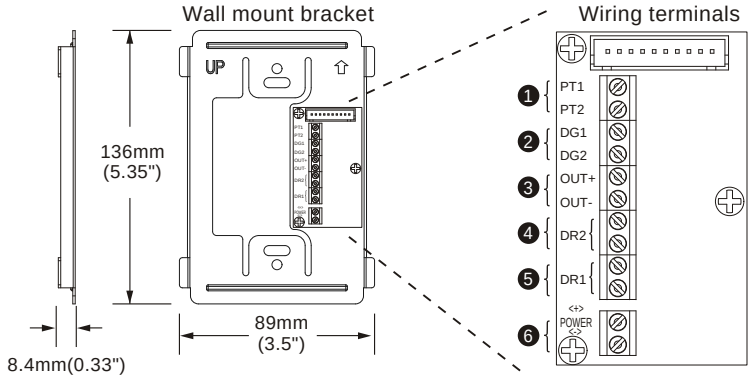
2.1. Main Monitor



◆ HFX-700M Main monitor identification:

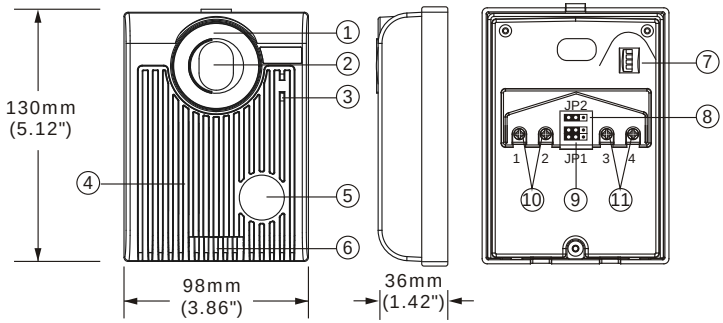
1. 3.5" Color TFT Screen
2. Speaker
3. In use LED
4. Monitor LED
5. Intercom LED
6. Speaking out LED
7. Microphone
8. Cut-off button( )
9. Intercom button( )
10. Monitoring button( )
11. Door release button( )
12. Power switch
13. Brightness tuner( )
14. Sharpness tuner( )
15. Bell Volume tuner( )
16. Speaker Volume tuner( )

◆ Main monitor wall mount bracket



❶ Magnetic switch sensor connection: for door status detection
❷ External chime or light indicator connection: for optional third party device
❸ Expansion monitor connection: for more indoor monitor expansion (w/polarity)
❹ Door camera connection(2): to the 2nd door camera terminals(no polarity)
❺ Door camera connection(1): to the 1st door camera terminals(no polarity)
❻ Power adapter connection

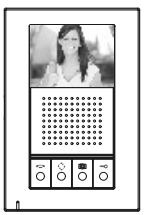
2.2. Door Camera



◆ HFX-700M Door Camera identification:

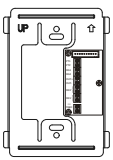
1. White LED Illumination
2. 1/3" Color CCD
3. Microphone
4. Speaker
5. Call button
6. Screw cover
7. CCD view angle knob
   (-6 degrees, 0 degrees, 8 degrees, 16 degrees)
8. Jumper 2 (enable/disable light senor)
9. Jumper 1 (dry contact or current output selection)
10. Wire to door strike
11. Wire to main Monitor

2.3.HFX-700M KIT Packaging



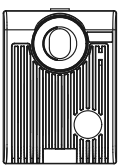
X1

Main monitor



X1

Wall mount bracket

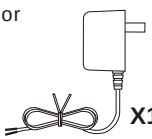


X1

Door camera

X1

Manual



X1

Adaptor

White wall
mount screws

X4

Flat head screws

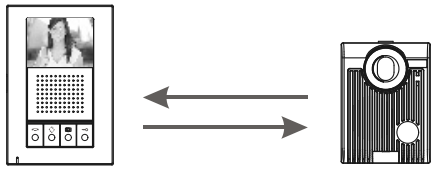
X4

X1

Screws wrench

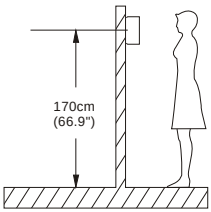
3. HFX-700M KIT Installation

3.1. Positioning the devices

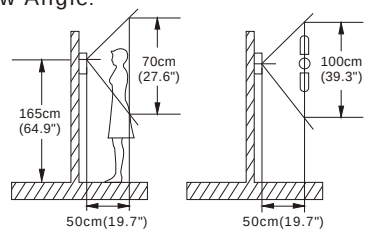


Main monitor　　Door camera

Proper height:



View Angle:

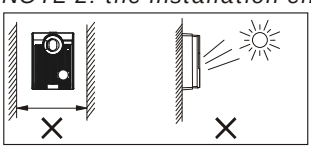


- The proper height of monitor or door camera is 160~170cm(63"~67") from the ground. This may vary on each installation. View range should be actively tested before complete.
- Viewing window of door camera is about 70cm up-n-down, and 100cm left-n-right.

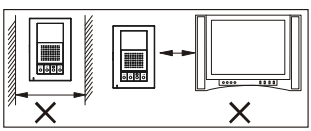
NOTE 1: Wiring distance

- From main monitor to door camera:
  Maximum of 50M with AWG22(⌀0.65mm) normal 2-wire parallel wires.
  Maximum of 100M with AWG18(⌀1.0mm) normal 2-wrie parallel wires.
- From monitor to monitor (every section):
  Maximum of 100M with AWG22(⌀0.65mm) normal 2-wrie parallel wires.

NOTE 2: the installation environment



- Narrow space may cause feedback echo on speakerphone function.
- Direct sunshine can cause blurry picture on monitor.

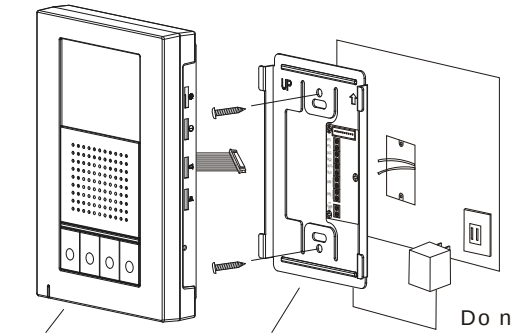


- Narrow space may cause feedback echo on speakerphone function.
- Too close to high power appliance may cause audio/video interference.

3.2. Installation

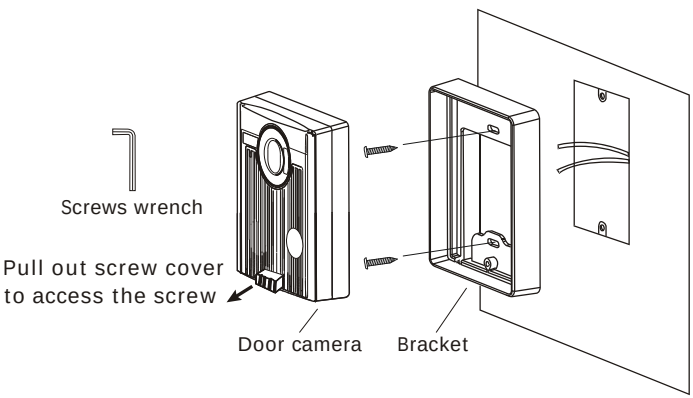
STAGE 1: Installation main monitor

A. Fasten the wall mount bracket using the provided hardware.
B. Fasten wires on terminals accordingly. (Refer to STAGE 3)
C. Plug pin wires and mount the monitor unit on bracket.



STAGE 2: Installation door camera

A. Use screws wrench disassemble screw and remove door camera unit from bracket.
B. Fasten wall mount bracket on position.
C. Fasten wires on terminals and select jumpers for desire function. (refer to STAGE 3)
D. Mount door camera unit on bracket, secure the assembly screw.

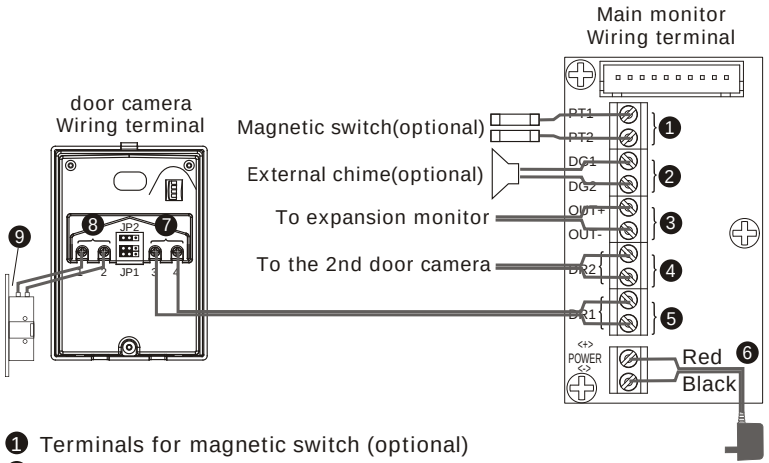


STAGE 3: Wiring and setting

A. Wire the system from terminals to terminals as accordingly.

B. Select and plug JP2 to its RIGHT( ) to disable automatic LED light supplement at night. Factory setting is LEFT( ) as enable.

C. Select and plug JP1 to its RIGHT( ) for direct current output control. Factory setting has JP1 to its LEFT( ) for dry contact bridge control. (Refer to 3.3 Door Release Options)

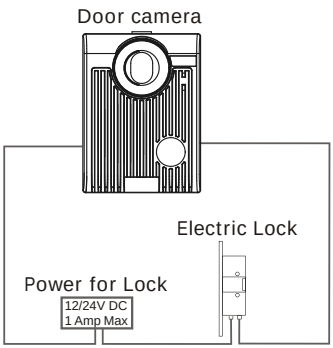


1. Terminals for magnetic switch (optional)
2. Terminals for external chime (optional)
3. Terminals for expansion monitor (w/polarity)
4. Terminals for the 2nd door camera (w/o no polarity)
5. Terminals for the 1st door camera (w/o no polarity)
6. Terminals for power adapter
7. Terminals to main monitor (w/o no polarity)
8. Terminals for door strike
9. Electric Lock

3.3. Door Release Options

- Each Door Camera on the system is able to operate and release one electric lock. On a full system with 2 door cameras, the user is able to release up to two electric locks. The system can only release one electric lock at a time, depending on which door camera the call originated from. There are two door release wiring options that work with the Video Intercom System.
- The system can either provide a normally open dry contact (figure 1), or can be configured to give power (12V DC 300mA) straight to an electric lock that is within the power requirements (figure 2). If you are using power from the system (figure 2), It is necessary to use an electric lock that requires less than 300mA of power to engage the strike.

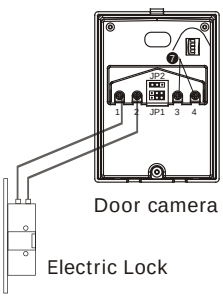
Figure 1: Door Release Option 1 (Additional power supply)



JP1

NOTE: When jumper setting is left (factory setting), the DOOR RELEASE terminals provide as a normal open dry contact with no polarity, allowing maximum by-pass current of AC24V or DC24V 1A.

Figure 2: Door Release Option 2 (Using power from the system)



JP1

NOTE: When jumper setting is right, the DOOR RELEASE terminals provide current output of maximum 12VDC 300mA.

4. HFX-700M KIT Test after installation

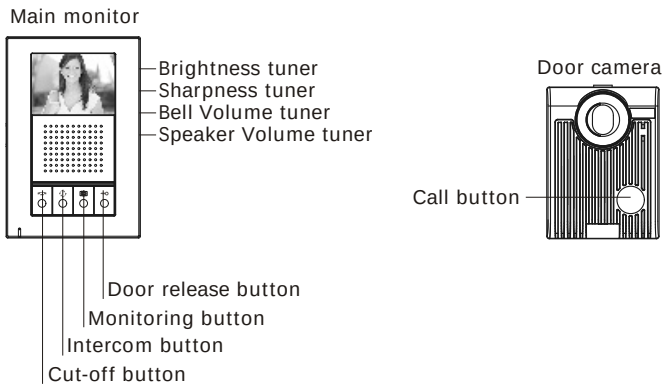
◆ Installed and with a good line, the need to test the system.

4.1. Basic function test

A. Plug in the power supply.
B. Press the call button on the door camera.
C. Check and adjust doorbell volume.
D. Check and adjust the picture quality.
E. Listen to the door camera and adjust the speaker volume.
F. Adjust view angle of the door camera.

4.2. Door release test(optional)

A. For door strike installation instructions please refer to page 11.
B. If there is an electric strike installed, activate the monitor by pressing the call button from the door camera.
C. Once the unit is activated, press and hold the door release button and open the door.
D. If the strike is operational, it should release the door when the button is pressed.
E. This is a DC powered strike, so it will trigger, and open the strike for as long as you are holding the button.



5. HFX-700M KIT Operation

◆ Operating the video intercom system consists of responding to visitor calls from door camera, releasing a door strike from indoor monitor; audio and video monitoring from any indoor monitor; voice broadcast from one monitor to all others; engage intercom function after voice broadcast.

5.1. Visitor Calls from Door Camera

A. When the Call button on the camera is pressed, All monitors on the system will ring with a chime sound and all monitors will be activated.

B. After the call, if nothing on the monitor is pressed, the system will time out after 30 seconds. If the monitor button is pressed, the system will stay active for 90 seconds.

C. You are able to terminate the activity on the monitor at any time by pressing the Cut-off button .

D. Press door release button from monitor can release remote door strike at door camera.

5.2. Audio and Video monitoring

A. Press the monitor button can monitor audio and video from door camera.

B. If there is a second door camera on this system, press Monitor button again to scroll to the second expansion door camera.

C. At anytime if you wish to terminate the monitoring, press the Cut-off button to terminate the system.

5.3. Unilateral voice mode control (similar to walky-talky)

A. Speaking out LED on means voice is free to go out from monitor to door camera.

B. During conversation, press Monitor Button for 2 seconds can switch to unilateral voice mode. Under this mode, press-on Monitor Button and speaking out LED on allows unilateral voice to go out to door camera; let-go Monitor Button and speaking out LED off allows unilateral voice to come in from door camera.

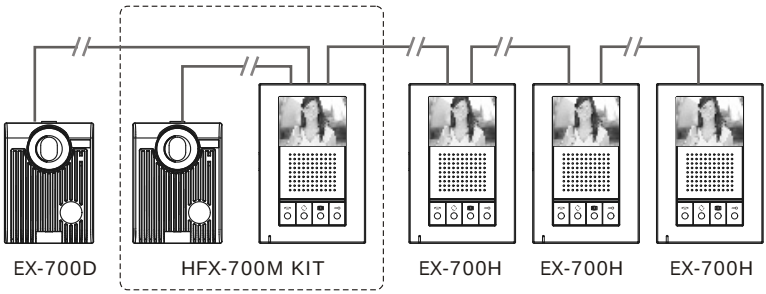
C. This function can be useful when environment at door camera side becomes too noisy.

EXPANSION OPTIONS

A. HFX-700M package consists a main monitor, a door camera, and a power adaptor for the monitor.
B. With HFX-700M KIT as a basic, the system is capable of expanding up to a total of 4 indoor monitors and 2 door cameras. Expansion monitor can choose video(EX-700H) or non-video(EX-700A).

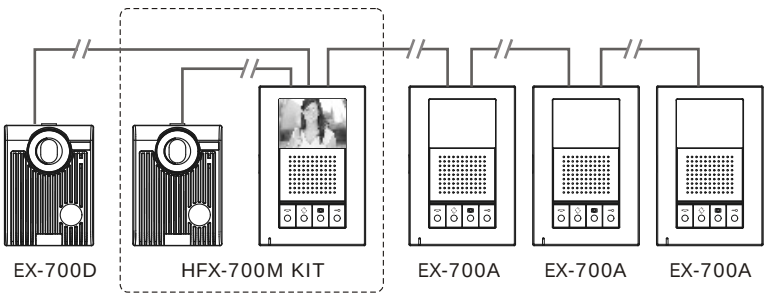
◆ System layout 1:

NOTE: the system is capable of expanding up to a total of 4 monitors (1 main video monitor + 3 expansion video monitor) and 2 door cameras.



◆ System layout 2:

NOTE: the system is capable of expanding up to a total of 4 monitors (1 main video monitor + 3 expansion non-video monitor) and 2 door cameras.

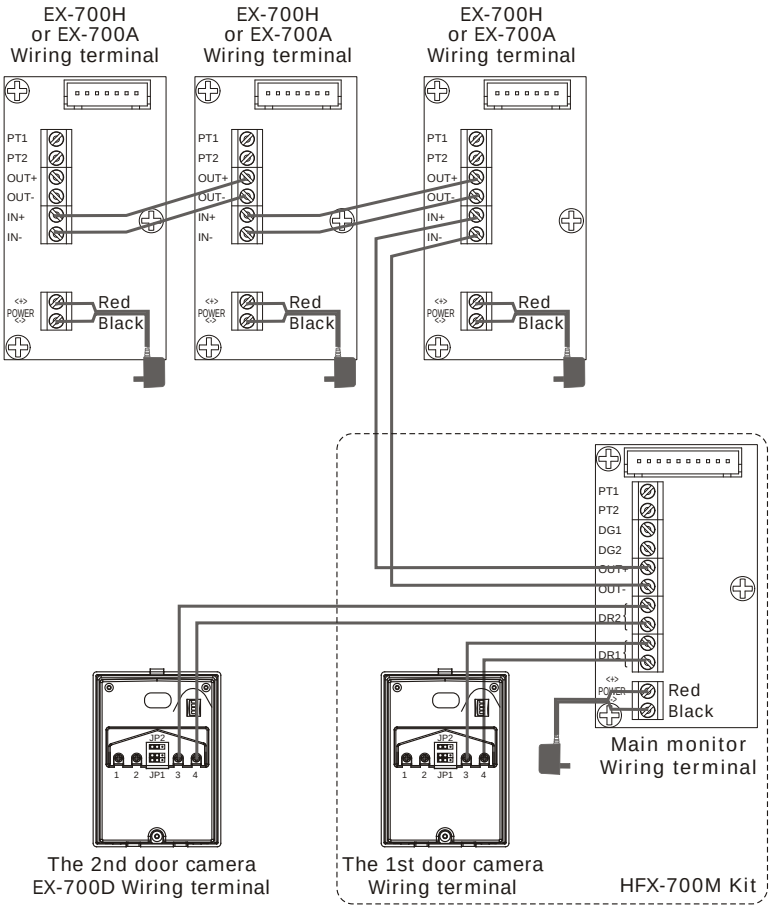


◆ Wiring Diagram:

A. Magnetic switch or external bell chime wiring, refer to page 10.

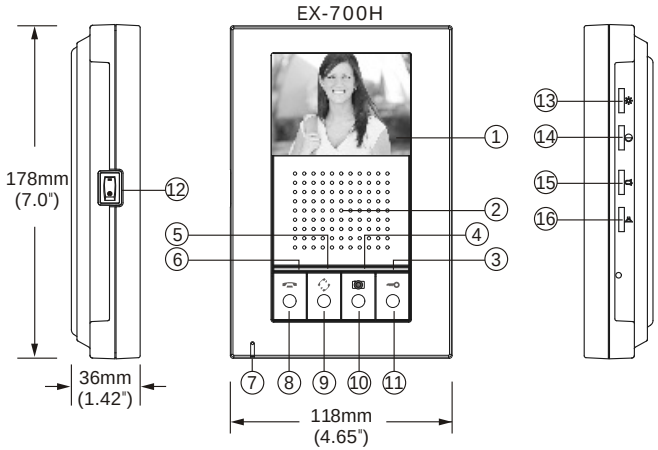
B. Electric lock strike wiring, refer to page 11.

C. Expansion video or non-video monitor wiring diagram is the same.



1. Expansion Video Monitor (EX-700H)

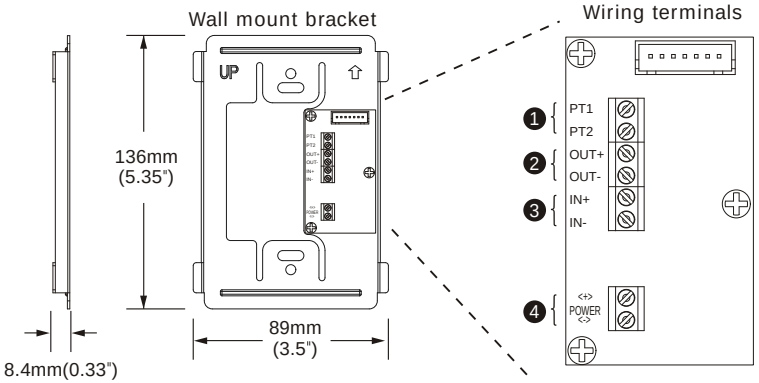
1.1. EX-700H Identification



◆ EX-700H identification:

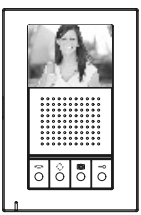
1. 3.5" Color TFT Screen
2. Speaker
3. In use LED
4. Monitor LED
5. Intercom LED
6. Speaking out LED
7. Microphone
8. Cut-off button(☎)
9. Intercom button(⟲)
10. Monitoring button(📷)
11. Door release button(🔑)
12. Power switch
13. Brightness tuner(☀)
14. Sharpness tuner(⊖)
15. Bell Volume tuner(🔔)
16. Speaker Volume tuner(🔊)

◆ EX-700H Wall mount bracket

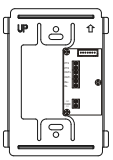


❶ Magnetic switch sensor connection: for door status detection
❷ OUT: to next EX-700H monitor, w/polarity
❸ IN: from HFX-700M or EX-700H monitor, w/polarity
❹ Power adapter connection

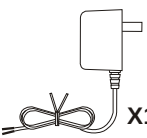
◆ EX-700H packaging



X1
Expansion monitor



X1
Wall mount bracket



X1
Adaptor

X2
White wall mount screws

X2
Flat head screws

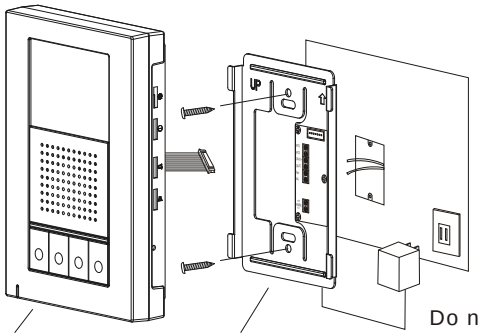
1.2. EX-700H Installation

STAGE 1: Installation expansion monitor

A. Fasten the wall mount bracket using the provided hardware.

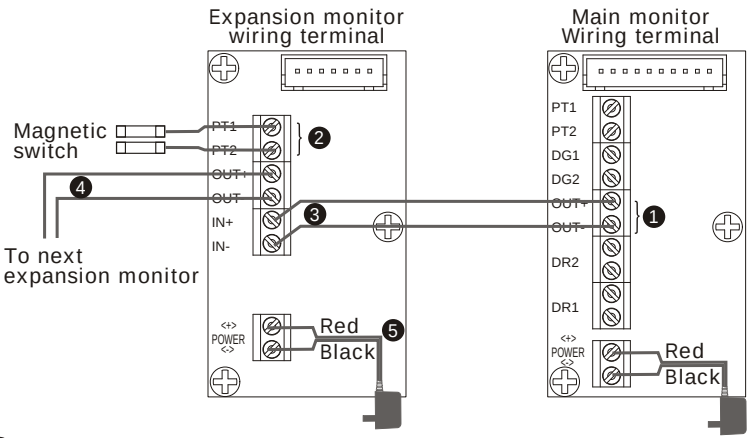
B. Fasten wires on terminals accordingly. (Refer to STAGE 2)

C. Plug pin wires and mount the monitor unit on bracket.



STAGE 2: Wiring and setting

A. Wire the system from terminals to terminals as accordingly.



❶ Terminals for expansion monitor
❷ Terminals for magnetic switch (optional)
❸ Terminals from previous monitor
❹ Terminals for next monitor
❺ Terminals for power adapter

1.3. EX-700H Operation

◆ Operates the same as the main monitor unit (Refer to page 13).

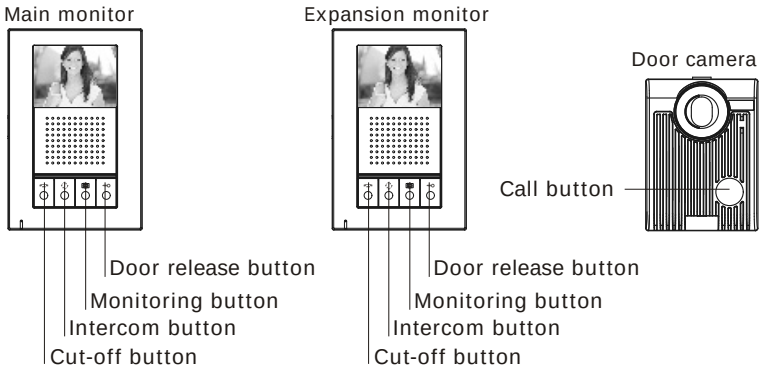
1.3.1.Broadcast and intercom function

A. When system consists of main monitor and expansion monitor and an outdoor doorbell/camera unit, system can provide intercom function.

B. Press intercom button from any monitor, all other monitors will react by making bell sound. At the same time, host can speak and broadcast voice message to all other monitors.

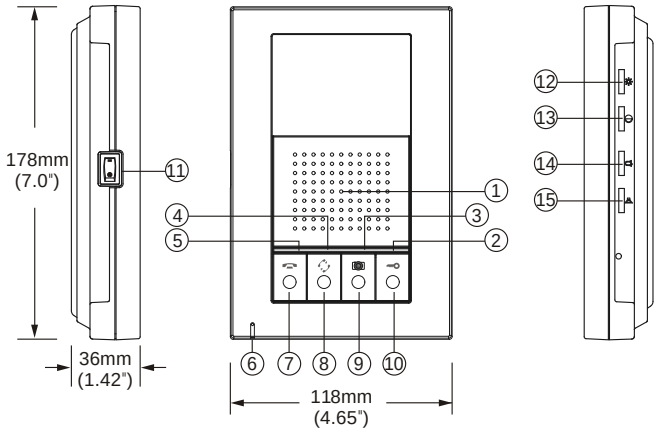
C. The broadcast mode can last for 20 seconds. During the 20 seconds, any other monitor press intercom button can engage intercom conversation with the host for maximum of 90 seconds. This function provides intercom only, monitors show no picture.

D. At anytime if you wish to terminate the monitoring, press the Cut-off button to terminate the system.



2. Expansion Non-video Monitor (EX-700A)

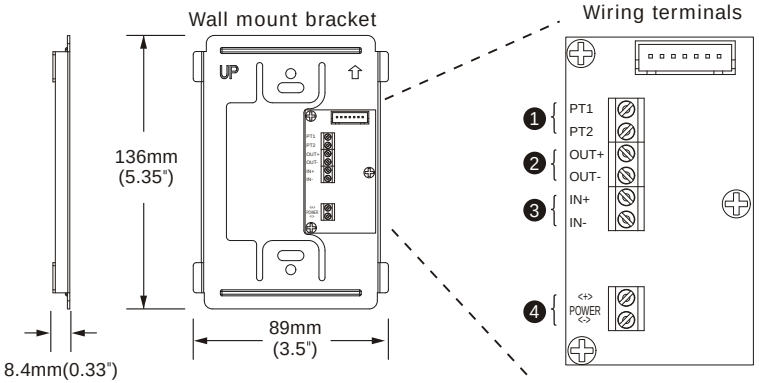
2.1. EX-700A Identification



◆ EX-700A identification:

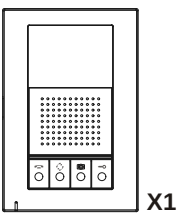
1. Speaker
2. In use LED
3. Monitor LED
4. Intercom LED
5. Speaking out LED
6. Microphone
7. Cut-off button(☎)
8. Intercom button(⟳)
9. Monitoring button(📷)
10. Door release button(🔑)
11. Power switch
12. Brightness tuner(☼)
13. Sharpness tuner(⊖)
14. Bell Volume tuner(🔔)
15. Speaker Volume tuner(🔊)

◆ EX-700A Wall mount bracket

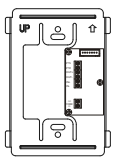


❶ Magnetic switch sensor connection: for door status detection
❷ OUT: to next EX-700A non-video monitor, w/polarity
❸ IN: from HFX-700M or EX-700A monitor, w/polarity
❹ Power adapter connection

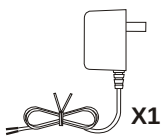
◆ EX-700A packaging



Expansion
non-video monitor



Wall mount bracket



Adaptor

White wall mount screws

Flat head screws

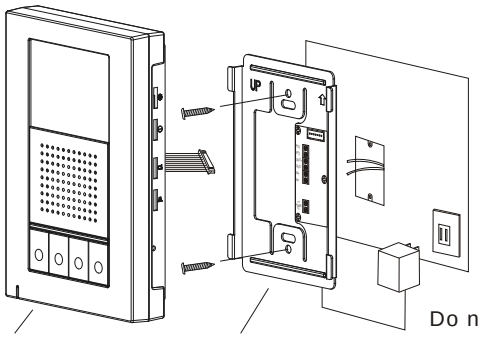
2.2. EX-700A Installation

STAGE 1: Installation expansion monitor

A. Fasten the wall mount bracket using the provided hardware.

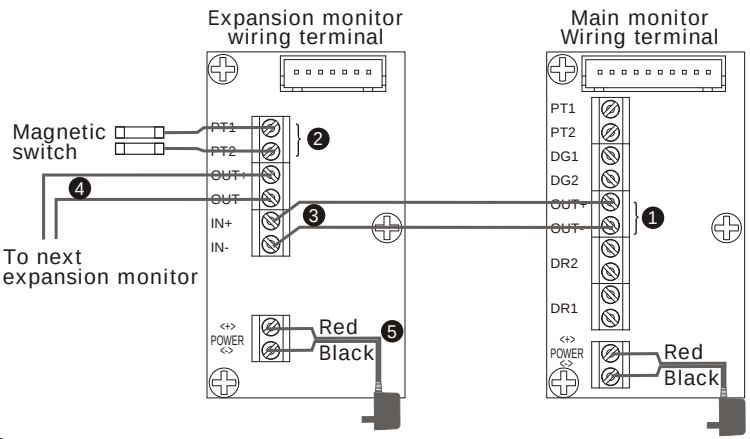
B. Fasten wires on terminals accordingly. (Refer to STAGE 2)

C. Plug pin wires and mount the monitor unit on bracket.



STAGE 2: Wiring and setting

A. Wire the system from terminals to terminals as accordingly.



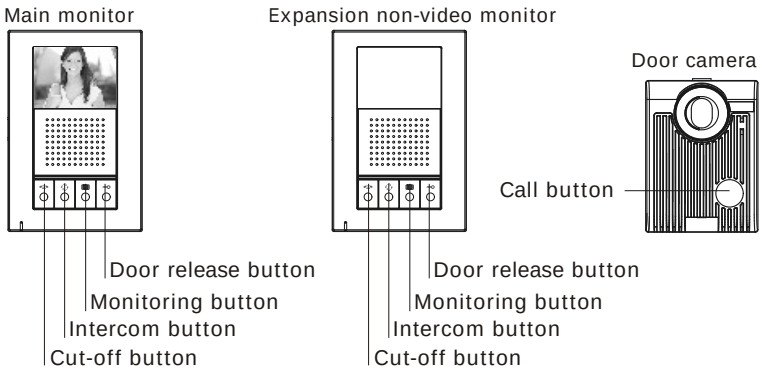
❶ Terminals for expansion monitor
❷ Terminals for magnetic switch (optional)
❸ Terminals from previous monitor
❹ Terminals for next monitor
❺ Terminals for power adapter

2.3. EX-700HA Operation

A. Operates the same as the main monitor unit (Refer to page 13).
B. EX-700A only audio function, not video function.

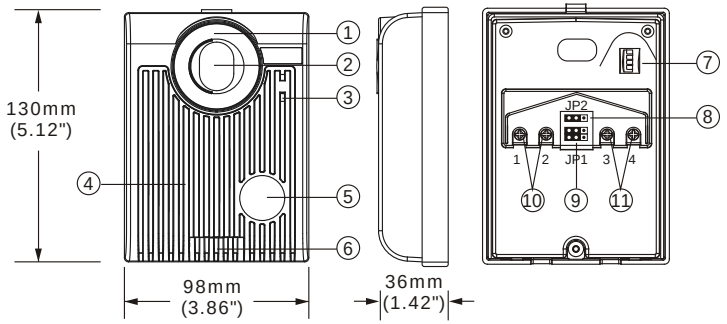
2.3.1.Broadcast and intercom function

A. When system consists of main monitor and expansion non-video monitor and an outdoor doorbell/camera unit, system can provide intercom function.
B. Press intercom button from any monitor, all other monitors will react by making bell sound. At the same time, host can speak and broadcast voice message to all other monitors.
C. The broadcast mode can last for 20 seconds. During the 20 seconds, any other monitor press intercom button can engage intercom conversation with the host for maximum of 90 seconds. This function provides intercom only.
D. At anytime if you wish to terminate the monitoring, press the Cut-off button to terminate the system.



3. Door Camera (EX-700D)

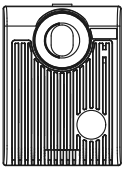
3.1. EX-700D Identification



◆ EX-700D identification:

1. White LED Illumination
2. 1/3" Color CCD
3. Microphone
4. Speaker
5. Call button
6. Screw cover
7. CCD view angle knob
   (-6 degrees, 0 degrees, 8 degrees, 16 degrees)
8. Jumper 2 (enable/disable light senor)
9. Jumper 1 (dry contact or current output selection)
10. Wire to door strike
11. Wire to main Monitor

◆ EX-700D packaging



X1 Door Camera

X2 White wall mount screws

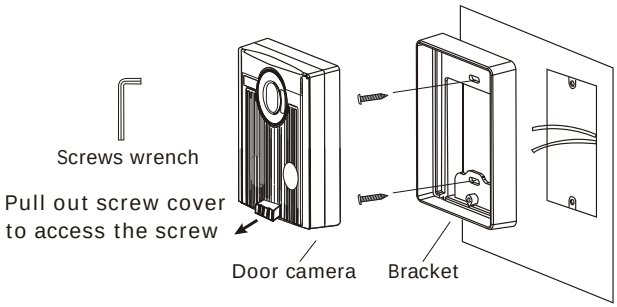
X2 Flat head screws

X1 Screws wrench

3.2. EX-700D Installation

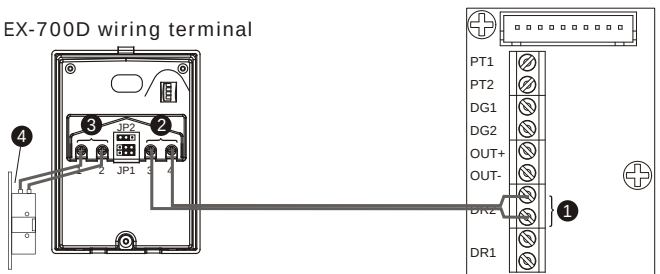
STAGE 1: Installation door camera

A. Use screws wrench disassemble screw and remove door camera unit from bracket.
B. Fasten wall mount bracket on position.
C. Fasten wires on terminals and select jumpers for desire function. (refer to STAGE 2)
D. Mount door camera unit on bracket, secure the assembly screw.



STAGE 2: Wiring and setting

A. Select and plug JP2 to its RIGHT(▪▪▫) to disable automatic LED light supplement at night. Factory setting is LEFT(▫▪▪) as enable.
B. Select and plug JP1 to its RIGHT(▫▪) for direct current output control. Factory setting has JP1 to its LEFT(▪▫) for dry contact bridge control. (Refer to Page 11Door Release Options)



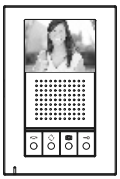
❶ Terminals for EX-700D door camera
❷ Terminals for main monitor DR2 terminals
❸ Terminals for door strike
❹ Electric Lock

3.3. EX-700D Operation

◆ Operates the same as the 1st door camera unit (Refer to page 13).

TECHNICAL SPECIFICATIONS

◆ HFX-700M(main monitor)



Display:	3.5" digital TFT-LCD
Resolution:	320 x 240 pixels
Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	20 seconds time out; 90 seconds for conversation
Operating Temperature:	14°F ~ 140°F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 2.1W, operating 7.8W (maximum)

◆ HFX-700M(door camera)

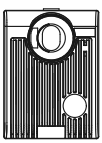
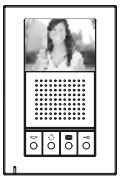


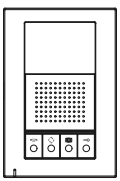
Image Sensor:	1/3" Sharp CCD
Resolution:	250,000 pixels (NTSC)
Camera Lens:	F/NO: 2.0 (120 degree)
View Angle:	-6°,0°,8°,16°manually adjustable
Auto Light Sensor:	enable/disable selectable (JP1)
Operating Temperature:	-13°F ~ 140°F, outdoor
Dimensions (w/ bracket):	3.86"(L) x 5.12"(W) x 1.42"(D)
Power consumption:	powered by main monitor
Remote Control: (dry contact bridge)	for maximum by pass current of 24V/1A
Remote Control: (direct current output)	maximum of DC12V/300mA

◆ EX-700H(optional expansion monitor)



Display:	3.5" digital TFT-LCD
Resolution:	320 x 240 pixels
Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	20 seconds time out; 90 seconds for conversation
Operating Temperature:	14˚F ~ 140˚F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 1.4W, operating 3.0W (maximum)

◆ EX-700A(optional expansion non-video monitor)



Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	20 seconds time out; 90 seconds for conversation
Operating Temperature:	14˚F ~ 140˚F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 1.4W, operating 3.0W (maximum)

◆ EX-700D(optional door camera)

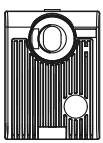


Image Sensor:	1/3" Sharp CCD
Resolution:	250,000 pixels (NTSC)
Camera Lens:	F/NO: 2.0 (120 degree)
View Angle:	-6˚,0˚,8˚,16˚manually adjustable
Auto Light Sensor:	enable/disable selectable (JP1)
Operating Temperature:	-13˚F ~ 140˚F, outdoor
Dimensions (w/ bracket):	3.86"(L) x 5.12"(W) x 1.42"(D)
Power consumption:	powered by main monitor
Remote Control: (dry contact bridge)	for maximum by pass current of 24V/1A
Remote Control: (direct current output)	maximum of DC12V/300mA

TROUBLE SHOOTING

Before requesting service, check the troubleshooting quide to solve the problem.

Problem	Solution
No power (no picture on monitor)	Make sure AC plug is firmly inserted into the AC outlet. Make sure the power terminal is firmly connected into the monitor unit. Check to ensure polarity is correct. (Red=positive, Black=negative).
System is on but no picture on the monitor	Make sure the cable is cnnected securely between the master monitor and the camera. Adjust the brightness and sharpness controls.
Sound is too low	Adjust the volume control.
Picture is too dark or too white	Adjust the brightness and sharpness controls

NOTE: Be sure to use this product with the AC adapter supplied by the manufacturer.

SERVICE AND WARRANTY

To receive after sales service, please provide the following information when contact.

a. Name of the product
b. Model and serial number of the product
c. The store's name where you purchased
d. Date purchased
e. Idea and area of possible problems

Information Card

Product name	
Model and serial number	
The store's name	
Date purchased (receipt)	

The warranty statements

a. This product is produced under strict internal quality control and inspection procedures.
b. The warranty is good for one year from the date purchased.If the product reacts down under proper treatment during warranty,please contact our after sales connection for free-of -charge repairs.
c. The following exceptional cases will be subject to charge,even during warranty period.

► Breakdown caused by transport,or through careless treatment by customer.
► Breakdown caused by unauthorized repair or modification.
► Breakdown caused by natural disaster or electric power disorder.

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